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Subject: Fw: Ecology News Release: State studies turn up toxic pollution in freshwater fish and sediment

Date: Tuesday, April 25, 2017 9:26:25 AM

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---- Forwarded by Marylou Soscia/R10/USEPA/US on 04/25/2017 09:26 AM -----

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Date: 06/21/2007 09:41 AM

Subject: Ecology News Release: State studies turn up toxic pollution in freshwater fish and sediment

Good morning -- Here's an Ecology news release about toxics in the state and the Columbia River Basin, fyi.....

--Andrew

FOR IMMEDIATE RELEASE - June 21, 2007 07-162

State studies turn up toxic pollution in freshwater fish and sediment

OLYMPIA - Toxic chemicals banned decades ago continue to linger in the environment and concentrate in the food chain threatening people and the environment, according to three recent studies by the Washington Department of Ecology (Ecology).

The new studies of toxic contaminants in freshwater fish and sediments add evidence to the state's push to reduce and eliminate the use of toxic substances.

"These studies provide initial screening and long-term monitoring that help show us where we need to focus our work to reduce toxic pollution in our lakes, rivers and streams," said Dave Peeler, manager of Ecology's water quality program.

In one of these studies, "Washington State Toxics Monitoring Program: Contaminants in Fish Tissue from Freshwater Environments 2004-2005," Ecology scientists found unacceptable levels of toxic substances in 93 samples of freshwater fish collected from 45 sites. The toxic substances included PCBs, dioxins, chlorinated pesticides (DDE and dieldrin) and brominated (PBDE) flame retardants.

As a result of the study, Ecology will investigate the sources of PCBs in the Wenatchee River, where unhealthy levels of PCBs were found in mountain whitefish.

Based on the new data and a previous 2004 Ecology study, the Washington Department of Health (DOH) is advising the public not to eat mountain whitefish from the Wenatchee River from Leavenworth downstream to where the river joins the Columbia due to unhealthy levels of PCBs.

Study results also indicated high levels of contaminants in fish tissue that scientists collected from Lake Washington and the Spokane River, where fish consumption advisories are already in effect. In Lake Washington, Ecology sampled cutthroat trout, common carp and northern

pike minnow. In the Spokane River, rainbow trout and mountain whitefish were sampled.

The study also indicates elevated concentrations of toxic contaminants in fish from the Snake, Columbia and Palouse rivers. DOH will evaluate the need to provide consumption advice for fish from these rivers.

PCBs are a family of human-made, chlorinated chemical compounds that were once used in a variety of products such as coolants and lubricants in transformers, capacitors, electrical equipment, old fluorescent lighting fixtures, and hydraulic oils. Commercial production of PCBs was stopped in 1977 because of concerns about toxicity and persistence in the environment.

"Fish is good for you, so it's important to include fish in your diet, and it's just as important that you have information to help make good fish choices," said Dave McBride, toxicologist for the Washington Department of Health. "We've been working with Ecology and Chelan-Douglas Health District, and we're advising people not to eat whitefish from the Wenatchee River."

State officials recommend that a variety of fish be included as part of a healthy diet. It's important to make smart choices and select fish that are low in mercury, PCBs and other contaminants. For more information about eating and preparing fish and to see the latest fish consumption advisories, visit: www.doh.wa.gov/fish.

Two studies look at mercury

Two other Ecology studies of mercury represent Ecology's first-year efforts of an ongoing initiative to monitor mercury levels in freshwater fish and lakes in Washington.

The studies are titled "Measuring Mercury Trends in Freshwater Fish in Washington State 2005 Sampling Results" and "History of Mercury in Selected Washington Lakes Determined from Age-Dated Sediment Cores 2006 Sampling Results."

"It's important that we continue to track mercury in the environment. Mercury releases to our air and water eventually end up in fish, threatening our health, particularly that of our children," said Rob Duff, manager of Ecology's environmental assessment program, which conducted all three studies.

The purpose of the mercury monitoring studies is to track mercury levels in fish from Washington over time and look at depositional patterns in lake sediments.

"We are making progress." Duff said. "We have increased proper disposal and recycling of mercury-containing products and eliminated its use in other products, thus reducing mercury releases to our environment."

In the past four years, Washington state has reduced mercury use and releases to the environment by more than 10,000 pounds. People are using more mercury-free thermostats mercury and local governments have new programs to increase proper recycling of mercury-containing thermostats and fluorescent lamps. Additionally, Ecology found a 50 percent drop in mercury levels in biosolids from several of the state's wastewater treatment plants from 2003 to 2006. The drop coincides with Washington's mercury reduction efforts as well as the state's work with dentists to collect and properly dispose of mercury-containing dental waste rather than washing it down the drain into wastewater treatment plants.

More success in reducing toxics in the state came this year when Washington became the first state in the nation to target all forms of PBDE flame retardants for elimination from the many common household products in which they are used.

Studies in animals show that the polybrominated diphenyl ethers (PBDEs) can affect the developing brain, altering behavior and learning after birth and into adulthood. Levels of PBDEs are rising in people worldwide, but are highest in North America. Children are at the most risk from these chemicals.

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Reporters can find local information about waters and fish species sampled in the appendices of Washington State Toxics Monitoring Program: Contaminants in Fish Tissue from Freshwater Environments 2004-2005 which is online at www.ecy.wa.gov/biblio/0703024.html.

Appendix A tells the site and species sampled (with county listing) Appendix B gives the National Toxics Rule criteria (the water quality standard Washington uses for toxic substances to protect human health and the environment).

Appendix D gives the name of the water/species sampled and the amount of what kind of toxic substance that Ecology found.

More information online:

How Washington is reducing toxics: http://www.ecv.wa.gov/toxics.html

How Washington is reducing use of mercury: http://www.ecy.wa.gov/mercury/

Fish Facts for Healthy Nutrition: http://www.doh.wa.gov/fish

Washington State Toxics Monitoring Program: Contaminants in Fish Tissue from Freshwater Environments 2004-2005 www.ecy.wa.gov/biblio/0703024.html

Measuring Mercury Trends in Freshwater Fish in Washington State 2005 Sampling Results $\frac{\text{http://www.ecy.wa.qov/biblio/0703007.html}}{\text{http://www.ecy.wa.qov/biblio/0703007.html}}$

History of Mercury in Selected Washington Lakes Determined from Age-Dated Sediment Cores 2006 Sampling Results www.ecy.wa.gov/biblio/0703019.html

List of terms
The following substances are persistent, bioaccumulative, and toxic chemicals (PBTs) and they are described below. PCBs, which are defined in the news release, are a PBT, also.

Mercury -- Mercury occurs in the earth's crust and is released to the environment from natural events such as volcanoes, weathering, and forest fires, and from human activities, such as fossil fuel combustion, mining, and industrial processes. Methylmercury is the toxic form of mercury which persists in the environment as it accumulates in the food web. Eating fish and shellfish contaminated with methyl-mercury is the primary route for exposure to mercury for most people (ATSDR, 1999; Ecology and DOH, 2003; EPA, 2007).

Dioxins and Furans (PCDD/Fs) -- Dioxins and furans, or polychlorinated dibenzo-p-dioxins and -furans (PCDD/Fs), are unintentional byproducts of combustion processes. For example, they result from the burning of household trash, forest fires and waste incineration, and from chlorine bleaching in paper production, and chemical and pesticide manufacturing. Agent Orange, used as a defoliant in the Vietnam War, contained dioxins (ATSDR 2006).

Chlorinated Pesticides -- Pesticides include insecticides, herbicides, fungicides, and related chemicals used to control pests. Chlorinated pesticides were analyzed for in this study because of their widespread occurrence and persistence in the environment. Many of these pesticides are neurotoxins and are suspected or known carcinogens (EPA, 2000). Some were banned from use in the United States during the 1970s and 1980s as their hazards became evident. These include DDT, chlordane, and dieldrin.

PBDE Flame Retardants -- Flame retardants, specifically poly-brominated diphenyl ethers (PBDEs), are compounds added to plastic and foam products such as electronic enclosures, wire insulation, adhesives, textile coatings, foam cushions, and carpet padding. Increasing concentrations of PBDEs in humans and wildlife worldwide continue to raise concerns about their health effects. The highest levels of PBDE in human tissue have been found in the U.S. and Canada (Ecology and DOH, 2006).

Broadcast version New studies by the state Ecology Department confirm that toxic chemicals banned decades ago continue to linger in the environment.

One of the studies turned up high levels of toxic PCBs in Wenatchee River whitefish. State and local health officials will soon advise the public not to eat these fish.

The same study reconfirmed toxics in some fish from Lake Washington, and the Spokane River, where fish advisories are already in effect. It also found contaminants in fish from the Snake, Columbia and Palouse rivers,

where health officials will evaluate the need to provide consumption advice for fish. $\!\!\!$

Office of Communication and Education Ecology's Home Page: http://www.ecy.wa.gov

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